

REMARKS

Reconsideration of this application as amended is respectfully requested.

Applicants confirm the provisional election of the invention of Group 1 and have cancelled method claims 14 and 15 in Group 2. However, applicants reserve the right to file and application with the claims of Group 2.

Each of the named inventors is the inventor of at least one of the apparatus claims in Group 1. A new declaration is enclosed.

A new declaration believed to be in full compliance with 37 CFR § 1.67(a) and 1.52(c) is forthcoming.

Submitted herewith for consideration and approval by the examiner are revised drawings with the changes shown in red ink. In Figure 1, center line 71 has been added and the lead line of number 14 has been redirected. Also added are reference numbers 62 and 130. In Figure 2, reference number "92" has been changed to --96--. Number "92" designates snap connectors adjacent to the left parting edge while "96" designates snap connectors adjacent to the right parting line. In Figure 3, reference numbers 96, 102 and 172 have been added. In Figure 4, reference numbers 102, 160, 162, 166, 172 and 178 have been added. All of these reference numbers appear in other figures. In Figure 5, the lead line of reference number 40 has been redirected and reference numbers 86, 108, 110 and 172 have been added. In Figure 5, a second reference number 96 has also been added. In Figure 9, lead line of reference number 104 has been extended as shown. No new matter has been added.

There is a snap receiver recess 102 between the two shroud alignment plates 172 near the bottom of Figure 3 that is not shown in the drawing. This snap receiver faces the snap receiver 102 adjacent to the rear edge 115 and the lower parting edge on the opposite

side of the lower shroud 36. It should be noted that there is a snap receiver 102 or 106 to receive each left parting edge snap connector 92 and each right parting edge snap connector 96. All of the snap receivers 102 and 106 are substantially identical to each other. Snap connectors 92 and 96 can be added, deleted or moved as desired to connect the two shrouds 34 and 36 to each other. All of the snap receivers 102 and 106 shown in the drawing figures are indicated by a reference number.

The drawing reference number changes and the addition of a center line of shaft 14 is believed to overcome the objections noted by the examiner without adding new matter.

The specification has been amended to correct reference numbers, to add reference number 71, to correct typographical errors, to set forth a first side elongated guide post 88, to set forth a second side elongated guide post 90, to set forth first parting edge snap connectors 92, to set forth second parting edge snap connectors 96, to set forth a first guide post receiver 166, to set forth a second guide post receiver 168, and to set forth an upper shroud guide post. These additions have added alternate terminology, found in the claims, to the specification but have not added new structure. The claims are therefore allowable and are believed to overcome the objections.

Claims 1-13 were rejected under 37 USC 112.

A first side elongated guide post 88 and a guide post receiver 166 and a second side elongated guide post 90 and guide post receiver 168, cooperate to align the lower shroud 36 with the upper shroud 34 during assembly. This alignment preferably occurs after the upper shroud 34 is attached to the steering column assembly 12.

Claim 1 as amended is clear and therefore patentable.

Claims 2-4 are dependant upon claim 1 and are allowable together with claim 1.

Claim 5 is dependant upon claim 1 and includes an upper shroud guide blade 68 that axially positions the upper shroud along the axis 71 of the upper steering shaft 14. Claim 5 is allowable together with claim 1.

Claims 6 and 7 include the upper shroud guide post 70 which limits rotation of the upper shroud 34 about the axis 71 of the upper steering shaft 14 in one direction. Claims 6 and 7 are allowable together with claim 1.

Claim 8 is an independent claim including a first side elongated post 88 and a first side guide post receiver 166, and a second side elongated guide post 90 and a second side guide post receiver 168 that cooperate to align the lower shroud 36 with the upper shroud 34. This structure in combination with other structures set forth in claim 8 is not shown or suggested by the prior art. A typographical error has been corrected by the amendment to claim 8. Claim 8 as amended meets the requirements of 35 USC Section 112 and is allowable.

Claims 9 and 10 are allowable together with claim 8.

Claim 11 is dependant upon claim 8 and includes an upper shroud guide blade 68 that extends forwardly from an upper shroud interior surface 64 and that axially positions the upper shroud along an axis 71 of the upper steering shaft 14 during mounting of the upper shroud 34 on the steering column assembly 12. Claim 11 is allowable together with claim 8.

Claim 12 is dependant upon claim 11 and includes an upper shroud guide post 70 that limits rotation of the upper shroud 34 about the axis 71 in one direction. Claim 12 is allowable together with claims 11 and 8.

Claim 13 is dependant upon claim 8 and includes the upper shroud guide 70

for positioning the upper shroud 34 about the axis 71 of the upper steering shaft 14 to align the cantilever snap fastener 72 and 74 with a steering column during assembly. It is believed that claim 13 meets the requirements of 35 USC Section 112. Claim 13 is therefore allowable together with claim 8.

New claim 16 is original claim 1 without the guide posts 88 and 90 and the guide post receivers 166 and 168. The purpose of the guide posts and the guide post receivers is to reduce assembly time in a manufacturing facility. The structure set forth in claim 16 has not been found in the cited patents. Claim 16 is therefore allowable.

Claims 17-19 are dependant upon claim 16 and are allowable together with claim 16.

Claim 20 is original claim 8 with the guide posts and guide post receivers removed. The structure set forth in claim 20 is not found in the cited prior art. Claim 20 is therefore allowable.

In view of the above this application as amended is in condition for allowance. Reconsideration and allowance is therefore respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned

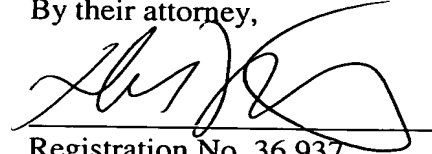
VERSION WITH MARKINGS TO SHOW CHANGES MADE.

The Patent Office is authorized to charge or refund any fee deficiency or excess to Deposit Account No. 50-0831.

Respectfully submitted,

Michael Patrick Anspaugh et al

By their attorney,

A handwritten signature in black ink, appearing to read 'Robert L. Stearns', is written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Replace the paragraph bridging pages 3 and 4 beginning at line 23 of page 3 as follows:

The shroud assembly 10, is mounted on the upper end of a vehicle steering column assembly 12. The steering column assembly 12 has an upper shaft 14 with male splines 16 that engage steering wheel splines in a steering wheel bore (not shown). A nut 18 clamps a steering wheel to the shaft 14. The upper steering shaft 14 is connected to a lower steering shaft that passes through a steering jacket 20. A mounting bracket 22 on the jacket 20 is clamped to a vehicle body. The steering column 12 can carry switches controlled by a turn signal lever 24. The turn signal lever 24 as shown also selects high beam or low beam lights, window washers, window wipers, and turns a cruise control system on and off. Emergency flasher lights are activated by a flasher switch control 26 mounted on the steering column 12. An ignition switch 28 is mounted on the steering column assembly 12 in a position in which a steering lock can be engaged or disengaged by the switch. A gear ratio selector lever 30 is also mounted on the steering column assembly 12. A boot 32 is connected to the gear ratio selector lever 30 and the shroud assembly 10 [12] to cover some of the shift linkage.

Replace the paragraph beginning at line 6 of page 4 as follows:

The controls mentioned above can be moved to other locations. The gear ratio selector 30 can be mounted on the floor of the passenger compartment, on a console between the front seats or on the instrument panel. The ignition switch 28 could be mounted on the instrument panel. The window washer and light controls can be on the instrument panel. Some of the controls can be mounted on the steering wheel if desired. The shroud assembly 10 [12] is modified as required to accommodate the controls mounted on the upper end of the

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steering column assembly 12.

Replace the paragraph beginning at line 13 of page 4 as follows:

The shroud assembly 10 for the upper end of a steering column assembly 12 includes an upper shroud 34 and a lower shroud 36. The upper shroud 34 is a one-piece molded member that covers the top of the steering column assembly and extends forward from the steering wheel toward the instrument panel. A first upper parting edge 38 on the left hand side of the upper shroud 34 [14] extends forward from an upper semi-cylindrical steering shaft passage portion 40 to a forward edge 42. A semi-cylindrical upper turn signal control lever passage portion 44 is provided in the first parting edge 38 a short distance forward of the upper steering shaft passage portion 40. An upper second parting edge 46, on the right hand side of the upper shroud 34, extends forward from the upper steering shaft passage portion 40 to a forward edge 42. A semi-circular upper ignition switch passage portion 48 is provided in the second parting edge 46 a short distance forward of the steering shaft passage 40. Vehicles, with a column mounted gear ratio selector 30, have a generally rectangular upper shift lever passage 52, between the ignition switch passage portion 48 and the forward edge 42. The ignition switch 28 is raised up above the steering shaft 16 and is forward of the steering shaft passage 40. Upper second parting edge portions 56 and 58 extend downward and inward from the ignition switch passage portion 48 to accommodate the raised position of the ignition switch 28. An emergency flasher switch controller passage 60 is provided in the upper shroud 34.

Replace the paragraph beginning at line 5 of page 5 as follows:

A vertical guide blade 68 protrudes forwardly adjacent to the steering shaft passage portion 40 of the upper shroud 34. During assembly, the vertical guide blade 68 contacts the steering column assembly 12 to position the upper shroud 34 in a fore and aft

direction and an upper shroud [a]guide post 70 contacts the steering column and positions the shroud angularly about the axis 71 of the upper steering shaft 14.

Replace the paragraph beginning at line 10 of page 5 as follows:

Cantilever snap fasteners 72 and 74 extend vertically downward from the interior surface 64 of the upper shroud 34. These snap fasteners 72 and 74 have lead-in alignment surfaces 76 and 78 for lateral adjustment with the steering column assembly 12. The fasteners 72 and 74 also have lead-in alignment surfaces 80 and a retainer ledge 82. The retainer ledges 82 of the cantilever snap fasteners 72 and 74 engage surfaces on the steering column assembly 12 and resist upward movement of the upper shroud 34 relative to the column assembly. The retainer ledges 82 have cam surfaces 83 that urge the upper shroud 34 toward the column assembly 12. Stabilized posts 84 and 86 limit deflection of the upper shroud 34 toward the steering column assembly 12 and downward when loads are applied to the exterior surface 62 of the shroud. The guide posts 70 and the guide blade 68 may also function as stabilizer posts and resist loads applied to the exterior surface 62 of the shroud 34. A pair of elongated alignment posts 88 and 90 extend vertically downward from the interior surface 64 adjacent to the steering shaft passage portion 40. A left or first side [One]alignment or elongated guide post 88 is to the left of the steering shaft passage 40 and spaced apart from the turn signal control lever passage portion 44 a short distance. A right or second side [The other]alignment or elongated guide post 90 is to the right side of the steering shaft passage 40 and rearward of the ignition switch passage 48.

Replace the paragraph bridging pages 5 and 6 beginning at line 28 of page 5 as follows:

A plurality of left or first parting edge snap connectors 92 are integral with the upper shroud 34 and extend vertically downward from the interior surface 64 adjacent to the

first upper parting edge 38. Each snap connector 92 has three lead-in surfaces 94 and a retainer ledge 95. A plurality of right or second parting edge snap connectors 96 are integral with the upper shroud 34 and extend vertically downward from the interior surface 64 adjacent to the second parting edge 46. Each snap connector 96 has three lead-in surfaces 98 and a retainer ledge 100. A snap receiver recess 102 is provided adjacent to the turn signal control lever passage 44. A snap holder 104 in the receiver recess 102 engages a retainer ledge 100. The snap holder 104 as shown in Figures 6 and 9, is a wedge surface that cams the snap connector 96 vertically and urges the upper shroud 34 and the lower shroud 36 toward each other. A snap receiver recess 106 is provided adjacent to the ignition switch passage 48, as shown in Figure 5. This recess 106 also has a snap holder 104. Alignment pins 108 and alignment walls 110 are provided as required to align the lower shroud 36 with the upper shroud 34.

Replace the paragraph beginning at line 1 of page 7 as follows:

Cantilevered lower snap fasteners 136 and 138 extend vertically upward from the interior surface 132. These lower fasteners 136 and 138 both have three lead-in alignment surfaces 140, 142 and 144 for providing alignment between the lower shroud 36 and the steering column assembly 12. A retainer ledge 146 on each lower cantilever snap fastener 136 and 138 engages a surface on the steering column assembly 12 and resists downward movement of the lower shroud 36 relative to the column assembly. A clothespin-shaped snap fastener 148 also extends upward from the interior surface 132. This snap fastener 148 has lead-in alignment surfaces 150 that laterally align the lower shroud 36 with the steering column assembly 12. The snap fastener 148 also has pocket 152, shown in Figure 4, which receives a rod on the column assembly and snaps around the rod. The rod lead-in surfaces 154 on the snap fasteners 148 guides a rod into the pocket 152 to hold the lower shroud 36 in

a fixed vertical position relative to the column assembly 12. A tilt adjustment lever stop and cushion holder 156 is integral with the snap fastener 148.

Replace the paragraph bridging pages 7 and 8 beginning at line 26 of page 7 as follows:

A first [pair of]alignment or guide post[s] receiver[s] 166 and a second alignment or guide post receiver 168 are integral with a rear wall 170 of the lower shroud 36. A number of lower shroud alignment plates 172 are integral with the lower shroud and extend vertically upward adjacent to the first lower parting edge 112, the second lower parting edge 118 and the lower steering shaft passage portion 114. These shroud alignment plates 172 are provided adjacent to the snap receiver recesses 102 with snap holders 104. In other areas the alignment plates 172 form pockets with the interior surface 132 that receives the short alignment walls 110 to laterally fix the exterior surface 62 of the upper shroud 34 relative to the exterior surface 130 of the lower shroud 36 at the parting edges 38, 46, 56, 58, 112 and 118. A snap connector 178 on a lower shroud 36 and adjacent to the turn signal control lever passage portion 116 is engageable with a snap holder 104 in [and]a snap receiver recess 102 in the upper shroud 34, [and] shown in Figure 6. A snap receiver recesses 102 on the rear wall 170 of the lower shroud 36 receives the snap connectors 96 [92]on the upper shroud 34 between the steering shaft passage portion 40 and the ignition switch passage portion 48.

Replace the paragraph beginning at line 9 of page 8 as follows:

During assembly of the shroud assembly 10, the upper shroud 34 is attached first. To attach the upper shroud 34, the upper steering shaft passage portion 40 and the vertical guide blade 68 are moved into contact with the upper rear portion of the steering column assembly 12. The upper steering shaft passage portion 40 positions the rear portion

of the upper shroud 34 vertically relative to the column assembly 12. The vertical guide blade 68 positions the upper shroud 34 axially relative to the upper steering shaft 14 and limits forward movement of the upper shroud. The upper shroud 34 is then rotated about the axis of the upper steering shaft 14 until guide posts 70 contacts the steering column assembly 12. The forward edge 42 of the upper shroud 34 is then moved downward to move the cantilevered snap fasteners 72 and 74 into contact with the steering column assembly 12. It may be necessary to move the upper shroud 34 slightly from side to side and slightly fore and aft to align the cantilever snap fasteners 72 and 74 with passages in the steering column assembly 12 or with edge surfaces of the column assembly. Lead-in alignment surfaces 76, 78 and 80 on the cantilever snap fasteners 72 and 74 guide the snap fasteners into the passages in the steering column assembly 12. Vertical pressure downward on the upper shroud 34 springs the cantilever snap fasteners 72 and 74 relative to each other until the retainer ledges 82 snap into place and secure the upper shroud 34 to the steering column assembly 12. The stabilizer posts 84 and 86 and the guide post[s] 70 limit downward movement of the upper shroud 34. The retainer ledges 82 on the cantilever snap fasteners 72 and 74 includes inclined cam surfaces 83 that urge the guide post[s] 70 and the stabilizer posts 84 and 86 toward engagement with the steering column assembly, fix the position of the upper shroud 34 and limit movement between the upper shroud and the steering column assembly 12.

Rewrite claims 1 and 8 as follows:

1(amended). A snap-on steering column shroud assembly comprising:

an upper shroud of molded one-piece construction including a first upper parting edge, a second upper parting edge, an upper shroud upper end steering shaft passage portion, and a plurality of upper shroud steering column assembly engaging cantilever snap

fasteners;

a lower shroud of molded one-piece construction including a first lower parting edge, a second lower parting edge, a lower shroud upper end steering shaft passage portion, and a plurality of lower shroud steering column assembly engaging cantilever snap fasteners;

a first side elongated guide post and a first guide post receiver, and a second side elongated guide post and a second guide post receiver that cooperate to align the lower shroud with the upper shroud;

a plurality of first parting edge snap receivers and a plurality of first parting edge snap connectors adjacent to the first upper parting edge and the first lower parting edge, that cooperate with each other to hold the first upper parting edge and the first lower parting edge in alignment with each other; and

a plurality of second parting edge snap receivers and a plurality of second parting edge snap connectors adjacent to the second upper parting edge and the second lower parting edge that cooperate with each other and hold the second upper parting edge and the second lower parting edge in alignment with each other.

8(amended). A snap-on steering column shroud assembly comprising:

an upper shroud of molded one-piece construction including a first upper parting edge, a second upper parting edge, an upper shroud upper end steering shaft passage portion, a plurality of upper shroud steering column assembly engaging cantilever snap fasteners, and a plurality of upper shroud deflection limiting posts;

a lower shroud of molded one-piece construction including a first lower parting edge, a second lower parting edge, a lower shroud upper end steering shaft passage portion, a plurality of lower shroud steering column assembly engaging cantilever snap

fasteners, and a plurality of lower shroud deflection limiting posts;

a first side elongated guide post and a first side guide post receiver, and a second side elongated guide post and a second side guide post receiver that cooperate to align the lower shroud with the upper shroud;

a plurality of first parting edge snap receivers and a plurality of first parting edge snap connectors adjacent to the first upper parting edge and the first lower parting edge, that cooperate with each other to hold the first upper parting edge and the first lower parting edge in alignment with each other; and

a plurality of second parting edge snap receivers and a plurality of second parting edge snap connectors adjacent to the second upper parting edge and the second lower parting edge that cooperate with each other and hold the second upper parting edge and the second lower parting edge in alignment with each other.

Add claims 16-20 as follows:

16. A snap-on steering column shroud assembly comprising:

an upper shroud of molded one-piece construction including a first upper parting edge, a second upper parting edge, an upper shroud upper end steering shaft passage portion, and a plurality of upper shroud steering column assembly engaging cantilever snap fasteners;

a lower shroud of molded one-piece construction including a first lower parting edge, a second lower parting edge, a lower shroud upper end steering shaft passage portion, and a plurality of lower shroud steering column assembly engaging cantilever snap fasteners;

a plurality of first parting edge snap receivers and a plurality of first parting edge snap connectors adjacent to the first upper parting edge and the first lower parting edge,

that cooperate with each other to hold the first upper parting edge and the first lower parting edge in alignment with each other; and

a plurality of second parting edge snap receivers and a plurality of second parting edge snap connectors adjacent to the second upper parting edge and the second lower parting edge that cooperate with each other and hold the second upper parting edge and the second lower parting edge in alignment with each other.

17. A snap-on steering column shroud assembly, as set forth in claim 16, wherein the upper shroud includes at least one integral deflection limiting post, and the lower shroud includes at least one integral deflection limiting post.

18. A snap-on steering column shroud assembly, as set forth in claim 16, wherein each of the plurality of upper shroud steering column assembly engaging cantilevered snap fasteners has an upper shroud retainer ledge with an upper shroud cam surface for urging upper shroud toward the lower shroud; and each of the plurality of lower shroud steering column assembly engaging cantilevered snap fasteners has a lower shroud retainer ledge with a lower shroud cam surface for urging the lower shroud toward the upper shroud.

19. A snap-on steering column shroud assembly, as set forth in claim 16, wherein each of the plurality of first parting edge snap receivers include a first snap holder wedge surface that urges the first upper parting edge and the first lower parting edge toward each other; and

wherein each of the plurality of second parting edge snap receivers includes a second snap holder wedge surface that urges the second upper parting edge and the second lower parting edge toward each other.

20. A snap-on steering column shroud assembly comprising:

an upper shroud of molded one-piece construction including a first upper

parting edge, a second upper parting edge, and upper shroud upper end steering shaft passage portion, a plurality of upper shroud steering column assembly engaging cantilever snap fasteners, and a plurality of upper shroud deflection limiting posts;

a lower shroud of molded one-piece construction including a first lower parting edge, a second lower parting edge, a lower shroud upper end steering shaft passage portion, a plurality of lower shroud steering column assembly engaging cantilever snap fasteners, and a plurality of lower shroud deflection limiting posts;

a plurality of first parting edge snap receivers and a plurality of first parting edge snap connectors adjacent to the first upper parting edge and the first lower parting edge, that cooperate with each other to hold the first upper parting edge and the first lower parting edge in alignment with each other; and

a plurality of second parting edge snap receivers and a plurality of second parting edge snap connectors adjacent to the second upper parting edge and the second lower parting edge that cooperate with each other and hold the second upper parting edge and the second lower parting edge in alignment with each other.